



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Kouta FUKUI

Group Art Unit: 1752

Application No. 10/658,470

Examiner: Thorl Chea

Filed: September 10, 2003

For: PHOTOTHERMOGRAPHIC MATERIAL, AND IMAGE FORMING METHOD
USING SAME

DECLARATION UNDER 37 C.F.R. §1.132

Honorable Commissioner of Patents and Trademarks

P.O. Box 1450, Alexandria, Virginia 22313-1450

Sir:

I, Kouta Fukui, do declare and state as follows:

I graduated from the Tokyo Institute of Technology, Interdisciplinary Graduate School of Science and Engineering with a Master's Degree in Engineering in March 1990;

I joined Fuji Photo Film Co., Ltd. in April 1990, and since that time I have been engaged in research and development in the field of silver halide photographic light-sensitive materials at Ashigara Research Laboratories (presently Medical Systems Development Center); and

I am familiar with the Office Action of October 10, 2006, and understand that the Examiner has rejected Claims 5 to 8 under 35 U.S.C. § 103(a) as being unpatentable over Asanuma et al. (USP 6,146,822) and Biegler et al. (U.S. Patent No. 5,600,396).

The following additional experiments were carried out under my supervision in order to make the advantages of the subject matter disclosed and claimed in the above-identified application more clear.

Experiment:

Samples 1 to 15 were prepared in the same manner as the coated sample 225, 324, or 326 of the working examples 5 and 9 shown in columns 67 to 71 and 78 to 84 of the specification of Asanuma, and are within the scope of the photothermographic material formed by coating a water-containing solution used in the method of the present invention. Samples 1 to 15 were subjected to thermal development under the same conditions as those for Example 1 of the present invention except that the activated carbon filter was necessarily used and the time lengths therefor were varied as shown in the following Table 2. The thus developed samples were then evaluated in the same manner as for Example 1 of the present invention. The

results of the evaluation tests are shown in Table 2.

It is understood from Table 2 that Samples 3 to 5, 8 to 10, and 13 to 15, for which the image forming method that was used is within the scope of the present invention since the time for thermal development therefor is in a range of 7 to 15 seconds as claimed in the present invention, show unexpectedly remarkable effects in the suppression of odor and the volatilization remaining ratios of the phthalazine derivative and phthalic acid derivative compared to Samples 1, 2, 6, 7, 11 and 12, for which the image forming method that was used is outside the scope of the present invention since the times for thermal development therefor exceed 15 seconds.

Table 2

Sample No.	Coated sample No. in Asanuma	Phthalazine derivative		Phthalic acid derivative		Filter	Time for Thermal development (sec)	Photographic performance		Odor	Quantitative analysis		Remarks(**)
		Type ID in Asanuma	Volatilization remaining ratio at 160°C	Type ID in Asanuma	Volatilization remaining ratio at 160°C			Dmin	Dmax		Phthalazine derivative	Phthalic acid derivative	
1	225	I-1-16	71%	II-22(*)	99%	Setup	20	0.05	3.2	X	11	19	C.E.
2	225	I-1-16	71%	II-22(*)	99%	Setup	17	0.05	3.2	X	5	11	C.E.
3	225	I-1-16	71%	II-22(*)	99%	Setup	15	0.04	3.1	O	N.D.	N.D.	The invention
4	225	I-1-16	71%	II-22(*)	99%	Setup	13	0.04	3.1	⊙	N.D.	N.D.	The invention
5	225	I-1-16	71%	II-22(*)	99%	Setup	10	0.04	3.1	⊙	N.D.	N.D.	The invention
6	324	I-1-2	75%	II-2	99%	Setup	20	0.07	3.0	X	6	15	C.E.
7	324	I-1-2	75%	II-2	99%	Setup	17	0.06	3.0	X	4	8	C.E.
8	324	I-1-2	75%	II-2	99%	Setup	15	0.06	3.0	O	N.D.	N.D.	The invention
9	324	I-1-2	75%	II-2	99%	Setup	13	0.05	3.0	⊙	N.D.	N.D.	The invention
10	324	I-1-2	75%	II-2	99%	Setup	10	0.04	2.9	⊙	N.D.	N.D.	The invention
11	326	I-1-10	72%	II-2	99%	Setup	20	0.07	3.3	X	8	15	C.E.
12	326	I-1-10	72%	II-2	99%	Setup	17	0.06	3.3	X	6	8	C.E.
13	326	I-1-10	72%	II-2	99%	Setup	15	0.06	3.3	O	N.D.	N.D.	The invention
14	326	I-1-10	72%	II-2	99%	Setup	13	0.05	3.3	⊙	N.D.	N.D.	The invention
15	326	I-1-10	72%	II-2	99%	Setup	10	0.04	3.2	⊙	N.D.	N.D.	The invention

(*) It should be noted that II-1 used in coated sample 225 of Asanuma is NOT a Phthalic acid derivative, and thus is not taken into consideration herein.

(**) C.E.: Comparative example

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DATE: March 9, 2007

Kouta Fukui
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